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About 6th World Congress on Biomechanics

The 6th World Congress of Biomechanics is hosted by Biomedical Engineering Society of Singapore (BES) together with the Global Enterprise for Micromechanics and Molecular Medicine (GEM4) and the National University of Singapore (NUS), in conjunction with the 14th International Conference on Biomechanical Engineering (ICBME) and the 5th Asian Pacific Conference on Biomechanics (APBiomech). With over 2,000 delegates from all over the World, especially from the Asia Pacific region, to attend this congress, this Biomechanics conference explores a wide field such as organ mechanics, tissue mechanics, cell mechanics to molecular mechanics.

At the 6th World Congress of Biomechanics, authors would be presenting the largest experimental studies, technologies and equipment. Special emphasis will be placed on state-of-the-art technology and medical applications, for example in areas of sports medicine and crash injuries.

Foreword

The 6th World Congress on Biomechanics 2010 (www.wcb2010.net), a quadrennial event was held in Singapore from 1 to 6 August 2010 at the Suntec Convention Centre. The Congress was held in conjunction with the 14th International Conference on Biomedical Engineering (ICBME) 2010 and The 5th Asian Pacific Conference on Biomechanics (APBiomech) 2010. This World Congress was hosted by the Biomedical Engineering Society (Singapore), Global Enterprise for Micromechanics and Molecular Medicine (GEM4) and the National University of Singapore (NUS).

The 1st World Congress on Biomechanics (WCB) was held in San Diego (1990), followed by Amsterdam (1994), Sapporo (1998), Calgary (2002) and Germany (2006). The World Congress has witnessed steady growth in the number of participants. The World Congress of Biomechanics provides an international platform for information and knowledge transfer, interaction and networking for global collaborative research among clinicians, scientists and engineers. It was also a great opportunity for industry to seek out potential development. Furthermore, young researchers were able to make use of this platform to network with their counterparts and also access the world renowned researchers in this field.

Biomechanics is a strategic interdisciplinary subject. It seeks to integrate engineering mechanics with biology and medicine to provide greater understanding of biological processes and the development of medical devices. WCB2010 had 6 Themes, ranging from organ to molecular biomechanics, giving rise to 46 Tracks and 115 Symposia. There were also intra-conferences mounted by SMART, GEM4, Mechanobiology RCE and Tohoku University's COE on Nanobioengineering.

This Proceedings represent a collection of scientific papers that were presented at the 6th WCB 2010 in Singapore.

Best Wishes
James Goh, PhD

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